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Night as Fragmenting Frontier: Understanding the Night that Remains in an era of 24/7

Social scientists have previously understood the night through a frontier metaphor. This has pitched night as an empty or lightly-inhabited space into which the urban, capitalist day has been expanding. The contemporary increase in nocturnal research has complicated this picture, showing an increasing multiplicity of complexly lived, structured and experienced nights across the globe. This paper looks to retrieve the concept of night as frontier by drawing on postcolonial theories to generate a more subtle conceptualisation of 'frontier', whilst also arguing that recent research reveals that this frontier is now fragmenting. As nocturnal social science starts to mature, a more critical eye needs to be paid to the complexity of shifting power relations and identities within these complex urban nights, noting that as the night increasingly becomes subject to governance, so traditional modes of resistance or spaces outside of power will start to shrink.

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Social scientists of the night have hitherto largely described night as a space-time that has been opened up, expanded into, and colonised. Gwiazdzinski characterises this as the slow conquest of the night (2005, p78), an almost inevitable march during which the activities of the day – associated with state power, capitalist exchange, and social norms – enter into and overcome the night – associated with the absence of the state, artistic creativity, and social deviation. The metaphor of ‘frontier’, which holds that just as capitalism and ‘Western society’ have spread spatially across the globe, so too have they spread temporally into the night, repeats across different authors’ work and variations on this perspective have informed much of social science’s nocturnal research. Objections to this conceptualisation have typically operated on two grounds. The first is to contest the conceptualization of frontier as too blunt, arguing that it replicates an uncritical Eurocentric models of spatial expansion into an uninhabited land, providing a binary reading of night and day. Gallan and Gibson argue that by replicating this binary, the frontier metaphor acts as “another means through which the field of human possibility is constrained” (Gallan and Gibson 2011, p249). Rather, they argue, research into the night (like research into colonialism) needs to reveal the ways in which the night has always been a complex and fragmented timespace. This perspective insists that night is always contested, subject to “social struggles about what should and should not happen in certain places during the dark of the night” (Williams 2008, p514). A second group of objections rests not inherently on the limits of the night as frontier metaphor, but argues instead that the contemporary night has moved on from this position. Such claims are at the centre of Crary’s argument that we have entered an era of “24/7”, his name for the temporal organisation of ‘late capitalism’ (Crary 2013). In this paper, I want to suggest that we can respond to the first critique by drawing on more subtle descriptions of frontier, informed by postcolonial theories, and that contemporary research shows the limitations of rejecting entirely the notion of frontier that is required by the second critique.

Prior to Melbin’s sociological and Schivelbusch’s historical research during the late 1970s and 1980s, very little if any social science work had explicitly taken the night as its unit of investigation. Even in his 2004 book, Gwiazdzinski was able to claim that, with the exception of mainly British research into ‘the night-time economy’, little work had been done which looked at night. However, and in geography in particular, the last decade has seen a new wave of nocturnal research. This has emerged predominantly along three lines. As identified, the deepest area of research is the field of ‘night-time economy studies’. With its root in interdisciplinary research in the 1990s by both academics and think-tanks (Comedia 1991, Hollands 1995), this research area has charted the rise of a newly commercialised urban drinking culture in much of the Global North but increasingly in a more diverse range of locations as well (Jayne, et al. 2011, Hadfield 2015). A second research programme has explored the management, maintenance and operation of various nocturnal infrastructures (Tomic, et al. 2006) and particularly the electrification and lighting of the urban night (Jakle 2001). Relatedly, the third and perhaps most recent to develop strand of research has focused more broadly on light and dark, exploring the creation and experience of these across a variety of geographical settings (Edensor 2013, Kumar 2015). In combination, these topics reveal a new interest in questions about the night.

This paper will use an exploration of recent nocturnal-oriented research to illuminate what remains of ‘the night as frontier’ in light of this new research agenda. My conceptual argument is twofold: first, that with a subtler vision of frontier than is available in some of the literature, we can retain the value of this metaphor. The second is that, through contemporary research into the night, we can

see the way that this frontier is now fragmenting. This reveals a series of complex nights emerging globally, whereby nocturnal culture is beginning to gain a complexity and hybridity equivalent to that of the day. The newly fragmenting frontier of night, I argue, shows evidence for both the dominance of diurnal capitalist expansion, but also for the persistence of continued pockets of 'nocturnality'.

Night: The Final Frontier

With Western capitalism spread apparently across the globe, Gwiazdzinski describes the night as the 'final frontier' of its expansion (Gwiazdzinski 2005). Under this narrative, night has been understood as time into which diurnal activities have slowly expanded, stemming "from the same forces that promoted geographic expansion in the past" (Melbin, 1987, p29). This motif has repeatedly returned in a variety of different work, but can be seen of note in the writing of Melbin (1977, 1987) and Gwiazdzinski (2005), as well as more briefly in Schivelbusch (1988), Schlör (1989) and the work of Marx. Across all authors, a number of characteristics of the temporal frontier are developed. First, the night is conceived of as being previously unknown and empty. So for Schivelbusch, the night was a "*terra incognita*" (Schivelbusch, 1988, p137); for Gwiazdzinski, "une inconnue, un «finisterre»"[an unknown, a 'land's end'] (Gwiazdzinski 2005, p61). Melbin compares the sparse populations of the nocturnal frontier to isolated settlements in the period of the American frontier expansion. Across these accounts, the attention paid to previously existing life and activity on both the spatial and temporal frontiers is varied. Melbin's work is the most uncritical of frontier: his characterisation of the concept is naïve, speaking of 'bold explorers' entering the 'wilderness' of 'Indian country' (Melbin, 1987). Although his work is more subtle, the limited sociality of the medieval night in Europe as characterised by Schivelbusch¹ has subsequently been shown to be significantly more complex, as described in Ekrich's research (2006). .

A second common feature identified of the night as frontier is that it is a time-space filled initially by people seeking to escape the surveillance and social structures of the day. This is best illustrated in Gwiazdzinski's more subtle vision of the 'pre-frontier' night, seeing the night as a time of rest which nonetheless forms a part of a twenty-four hour urban rhythm. The night, for him, was previously a time for artists and outsiders only, escaping dominant structures of power while the city slept (Gwiazdzinski, 2005, p20). Melbin notes that those using the night-time city tend to be from social groups with less power – working class, immigrants, young people and non-white people are all more likely to work in the night. As he argues, they are attracted to night by its reduced surveillance: "Night offers them more security because observability and the pressures for conformity have eased" (1987, p61). This contemporary exploration reflects historical trends too, and Schivelbusch reflects on how early street-lighting in Paris – and the end to the safety of darkness associated with it – was frequently attacked by those who had previously been using the night-time city (1988, p98), pointing to the ways in which the previous inhabitants of the nocturnal frontier might have also tried to resist temporal expansion.

Third, night as frontier has been characterized as both dangerous and alluring. The frontier is a time of adventure, a time which is difficult to control and which as such offers both opportunities and threats (Gwiazdzinski, 2005, p200). Gwiazdzinski, Melbin and Schlör all describe the masculinity of nocturnal culture: as well as its users being predominantly males, the night is often understood to

¹ "Each evening, the medieval community prepared itself for dark like a ship's crew preparing to face a great storm. At sunset, people began a retreat indoors" (Schivelbusch, 1988, p81)

support virtues that have been associated with men. Indeed, Melbin stretches the metaphor further, noting that in families with male night-time shift workers, women are often left in the 'homeland' of the day to cope with household tasks, absorbing the incessancy created by the worker's migration to the frontier (Melbin 1988). Schlör argues that the night is feminized in relation to male expansion, reduced to a "male fantasy" (Schlör 1998, p11). Again, then, the frontier metaphor reflects a similarity between popular imaginations of the night and popular imaginations of frontier. Such similarities extend into the fourth major feature of the night as frontier metaphor, which is the vision of an inevitable expansion of day into night. The underlying mechanism is identified by Marx as the expansionary nature of capital as it seeks new markets and sources of productivity (Marx 1887). Such sentiments return with Gwiazdzinski, in which he notes the tendency towards ever more artificial societies throughout history, with 'natural' divisions – such as day/night – constantly under attack (Gwiazdzinski, 2005, p46).

Critics have pointed out that metaphors of night as frontier run the risk of forming part of a system of dualisms which perpetuate dominant power structures: "the notion that night is a frontier, a void into which we are now, only in urban modernity entering, draws upon and re-enforces the nature/culture, normalised/deviant, and active/inactive dualisms" (Gallan and Gibson 2011, p2514-2515). Furthermore, an uncritical acceptance of the nature of spatial frontiers could repeat colonial practices of Othering and oversight if they draw uncritically from the vision of frontier as "originally empty, dark, quiet... in ways that are historically inaccurate" (2011, p2513). As Edensor summarizes, night has always been the time for a certain amount of activity: "though pervasive, nyctophobia [fear of the night] is neither culturally and historically universal nor was it shared by all people during these times of scarce illumination" (Edensor 2013, p425). A major task of nocturnal scholarship must be to reveal the multiplicity of night, in ways which counter dominant discourses of night as deviant, empty, and 'naturally' dangerous. Nonetheless, understanding the night as frontier continues to offer value in exploring the emergent conflicts between, on the one hand, the public night as a timespace for alterity and difference outside of the dominance of capital and surveillance, and on the other hand the public night as increasingly subject to the same forces as the day. My suggestion is that the concept of night as frontier remains robust, if we extend the metaphor to acknowledge the insights that postcolonial critiques have made of spatial frontiers. Postcolonial theories, with their focus on the complexity and multiplicity of interactions, "allow one to move from the pastoral and idealized and, above all, from the uniform notion of 'the frontier'" (Naum 2010, p106). For Naum, frontiers are characterised by the incompatibility of ways of living "where negotiations take place, identities are reshaped and personhoods invented" (p107). A perhaps softer way of understanding these clashes is through the notion of the 'contact zone', in which nocturnal "subjects are constituted in and by their relations to each other ... not in terms of separateness or apartheid, but in terms of copresence, interaction, interlocking understandings and practices" (Pratt 2008, p7). Researchers have argued in particular that 'contact zone' speaks well to frontiers away from the space of 'high colonialism' (Morrissey 2005), which nonetheless exhibit features of expansion, conflict and hybridity. Retaining the term of frontier but conceiving it as 'contact zone' allows us to retain the insights of the night as frontier metaphor, but provides a potentially more subtle and insightful vision of nocturnal society.

So the first move in retaining the insights of the night as frontier metaphor is to build on Gwiazdzinski's and Schivelbusch's subtler understandings of frontier to reconceive of this timespace as 'contact zone', a space of interaction between expanding and 'indigenous' cultures. Following

this, the second move is to identify the ways in which this nocturnal frontier is changing, defined increasingly by hybrid spaces such as 'night-time high-street' (Hadfield 2006) or twenty-four hour supermarkets. Gwiazdzinski outlines a series of potential futures for ongoing expansion of day into night which highlights the ways in nocturnal spaces and practices may mix in with diurnal spaces and practices (2005, p204). This is developed by Crary, who offers a vision for temporality in the contemporary world which argues that night has been eroded by an era of '24/7'. For Crary, 24/7 is an 'orderword' which describes not a world in which all people now live and work around the clock, but in which an incessant society which remains active through the night creates a series of pressures and demands that dominate society (Crary 2013). Under this formulation, the night is not suddenly 'transformed' from frontier into something else; rather it starts to fragment, in face of a range of developing pressures.

It is for this reason that I chose the term 'fragmenting frontier' to describe the contemporary night. Temporal 'expansion' of Western capitalism has followed similar processes as spatial expansion, with a similar need for a consideration of the hybridity and complexity of resultant social forms. In acknowledging that we need to understand night through the same lenses of complexity and hybridity that spatial frontiers are now understood, we need to recognize the limitations of stretching the metaphor of the 'postcolonial' too far (Shohat 1992). As such the subsequent section of this article seeks to go beyond metaphor, developing this argument through contemporary nocturnal social science that explores the hybridity and complexity of the urban night. The three areas of research on which I focus all raise issues of change, hybridity and conflict between multiple visions of social forms at night.

Understanding the Night That Remains

Artificial Lighting and the Return of the Darkened City

The nineteenth and twentieth centuries saw the apparent realisation of a modernist dream, as urban and increasingly rural areas became artificially lit throughout the night (Schivelbusch 1988, Jakle 2001). In popular discourse, night became a space-time to be conquered, and a direct parallel was drawn between intellectual or moral enlightenment and the literal enlightenment of urban space (Edensor 2013, p428). Research has, however, explored some of the ways in which the darkness of night has remained in the city, and instances in which it even appears to be returning. A major source of this change has come in the shift towards partial night-lighting. Authorities globally have started looking at a range of options for reducing the amount of artificial light. Typically, one or more of four strategies are chosen: switching technologies to 'white' LED lighting, which produces equal visibility with less brightness in comparison to sodium lighting technologies that have been used since the mid-1930s; dimming, which is the reduction in the brightness of lighting for all or part of the night; part-night lighting, whereby lighting is switched-off at certain times during the night; or outright removal of lighting (Green, et al. 2015). Both dimming or part-night lighting may be operated through pre-programmed lanterns, but are increasingly being controlled by 'smart' technology that allows flexible and potentially rapid decision making with regards to the necessity of lighting, down to the scale of individual lanterns (Shaw 2014). While often couched in the language of sustainability and reduced carbon impact researchers have shown how such decisions may be made more frequently in the name of cost (Lockwood 2011), or certainly that financial concerns have trumped environmental ones (Shaw 2014). As such, Peck in particular argues that the failure to

'keep the lights on' marks the ongoing retreat of government from the provision of public services (2012).

The social implications of the reduction of artificial light at night remain contested. Several social scientists have argued that the ability to reconnect with darkened urban and rural landscapes may help counter modernist forms of alienation (Hölker, et al. 2009, Morris 2011, Edensor 2013, Edensor 2013), with Pottharst and Könecke producing a 'balance sheet' of positive and negative social effects of artificial lighting (2013). Of particular interest in public debate have been questions of road safety and crime, although research has suggested that the media debate has overemphasised the concerns of the majority of the population (Green, et al. 2015). Furthermore, researchers have repeatedly failed to find statistical correlations between reductions in street-lighting and increases in either crime or accidents, whilst noting the ongoing role that street-lighting has in preventing fear of crime (Herbert and Davidson 1994, Painter 1996, Pease 1999, Pain, et al. 2006, Steinbach, et al. 2015). Despite this lack of correlation, and some suggestions that a return to increased darkness might help produced a renewed nocturnal conviviality (Edensor 2013, Ebbensgaard 2015), there are questions which remain about the positives of reducing artificial light. A current gap in research has been in identifying the impact that street-lighting changes might have on marginalised groups. As Pain et. al. note, it is often the "micro-features of lighting" (2006, p2068), such as whether lighting shines on front doors, down back alleys, and in the gaps between poles, which have the most significant impacts on people's use of the night. Given that other austerity measures have had greater impact on working class and other marginal social groups (Peet 2011), a significant question for researchers is to establish whether the darkness that remains in the face of expanding capitalism is a darkness that leaves certain people behind.

One example where this might be worked through is in the case of responses to light pollution, and in particular the creation of dark skies parks. Outside of academia, a significant dark skies' movement has advocated for the protection of the night sky. This campaign has involved a mixture of artists, writers, biologists, the lighting industry and both professional and amateur astronomers. The 2011 collection *Let There Be Light* gathers together the arguments for dark skies:

"Our lack of attention to the spread of these [artificial] lights mirrors a lack of appreciation for night's ancient gifts of quiet, peace, and time to be with those we love. And, perhaps more seriously, as we've diluted the darkness, so have we negatively affected ecosystems" (Bogard 2011, p5).

As Dunnett argues, such claims rely upon "romanticism and a notion of the astronomical" incorporating "an understanding of landscape that incorporates aspects of cosmology, as well as generational and geological timeframes" (2014, p14). This encourages an innovative and embodied understanding of landscape; Edensor describes a visit to a 'Dark Sky Park' as beginning with "the infinite, dispassionate play of innumerable stars and galaxies [that] was somewhat overwhelming and a source of wonderment" (2013, p455). Through the adjustment to darkness, however, the landscape becomes transformed, as it becomes possible to "to not see certain features of the landscape at all, but to see others vividly" (p456). Here, the darkness which is newly legislated into being offers transformative potentials for understanding self and landscape. Indeed, the dark skies movement has had considerable success, with 45 locations listed as 'Dark Sky Places' by the International Dark Sky Association at the time of writing. What is interesting is that the planning

tools of the day – ordering, legislation, planning – that have typically overlooked night (Gwiazdzinski, 2005) are here being used to protect remaining vestiges of night. With this governmentalization of the dark, however, comes a series of questions about access. Dark Sky Places are predominantly rural, and the groups calling for their creation come mainly from a professional or artistic class (Dunnett, 2014). As with street-lighting, research has not established the effects of darker roads and towns on the populations in these areas, and questions must remain about the right to both dark and light. As Shaw argues, darkness “can create a positive affective atmosphere where individuals have had choice over their ability to enter in[to it]... , but there seems to be a reverse process occurring where individuals do not have this power” (2014, p11). From a reading of current research, which has depicted Dark Sky Places as potentially valuable but driven by special interest groups or tourism organisations, there remain a series of questions as to whether or not these can be developed through the kind of participatory, community oriented interventions that have had most success in supporting community well-being (Pain, et al. 2006). If residents are forced into living in the dark, the danger is that rather than a space-time of freedom or exception from expansion of the day, Dark Sky Places and other remnants of dark become instead fragments of exclusionary night, newly sociable and invigorating for some but threatening and limiting for others.

Night-Lives

The contact-zone of night has long cultivated alternative lifestyles, and recent research has explored how these continue to persist. Gwiazdzinski describes how the night-time city has been a space in which artists and political radicals have been able to congregate, while Beaumont looks at the historical intersection between literature and nocturnal alterity (Gwiazdzinski 2005, Beaumont 2015). Sharman and Sharman’s ethnographic work has revealed the multiplicity of different nightlives lived by shift workers, some of whom are forced into night while others chose to inhabit it (2008). Perhaps most interestingly, the Occupy movement has used the public night as a resource for protest. Protest movements have long filled buildings or city streets during the day, but Occupy is distinguished by maintaining this presence through the night. In London, the press used the claim that tents were not being slept in overnight to try and delegitimize the campaign; in New York, claims over the right (or lack of) to sleep on federal ground overnight became central to attempts for protesters to obtain a more secure position for their protest (Lubin 2012, p192). Sharma describes these techniques as a “temporal insurgency” (Sharma 2014, p7)p7, which as well as gathering in space disrupts the rhythms of cities. Similar tactics have been used by the ‘Reclaim the Night’ movement, which has held nocturnal marches to highlight the prevalence of sexual violence against women in the night-time city (Mackay 2014). These groups have drawn from the night as a resource for their protest, gaining value from rhythmic disruption as well as spatial disruption. For Sharma, this calls attention to the precarity of the situation of many contemporary protestors: by making themselves present in a location through the night, the Occupy movement and others seek to combat precarity through the creation of a small bit of persistence.

If researchers have shown how the Occupy movement has drawn from the night as a resource for contesting the capitalist day, other research has pointed towards the challenges experienced by groups who are forced into being on the city streets at night. Research into homelessness, for example, has revealed that while many move frequently in and out of precarious housing (Lee, et al. 2010), the majority of homeless people still spend some nights on the street. What emerges is a

complex nocturnal geography of the city. It is worth repeating at length the assessment by Cloke and colleagues of one research participant's activities:

Her journey is replete with tactical assessments and choices about how long to stay where and how profitable a place might be, and with performances of impression management which variously deflect and attract attention from people who she fears and begs from, respectively. It is also a journey punctuated with spontaneous outbursts of laughter/happiness and of anger/fear as she interacts with different people in different places. It routinely uses particular buildings, roads, and areas as waymarkers, and embodies walking considerable distances and standing around for considerable periods of time and, although her route was expressed as a nightly routine, Carolyn admitted to us that she changes her route according to the season and the weather. (Cloke, et al. 2008, p259).

The nightly routine for Carolyn sees her using the nocturnal city in the way that many other people might use the daytime city – as a space for a variety of social, economic and psychological purposes, containing a constant variation of affect. Of course, much of the movement is forced - the night is a period of wandering and mobility for many homeless people, rather than sleep and rest (Jackson 2012); the routines of the night do not create stability or security. Rather, they are ways of experiencing and negotiating the city.

A variety of other groups make use of public space at night, in ways which seem to fall outside the simple narrative of economic expansion of day into night. Wilkinson reports on young people's tactical use of parks and other empty spaces for surveillance free drinking and socialising (Wilkinson 2015), while 'Street-Pastors' and other similar groups use the night-time city as a time for care, community support, and (at least tacitly) promotion of Christianity (Middleton and Yarwood 2015). The night remains a space-time in which the practising of a varied forms of sexuality is typically more common (Hubbard and Colosi 2015) and a time in which drug-taking and other forms of 'deviant' behaviour are still concentrated (Measham and Moore 2009). Whether as a source of resistance, a time-space to be survived through a series of tactics, or as a space of freedom, researchers have uncovered multiple different ways in which the contact-zone of night as frontier continues to foster alternative subjectivities.

Global Nights

As well as operating in the spaces of the Global North, geographers have also – albeit to a limited degree – started to explore the variety of nights that can be seen globally. In so doing, they reveal a number of different ways in which night persists across a variety of geographical contexts. Some of this has revealed a spread of nocturnal capitalism globally. While 'night-time economy studies' has predominantly focused on experiences in Europe, the USA and Australia (Jayne, et al. 2011, Hae 2012, Jayne, et al. 2012, May 2014, Shaw 2014, Brands, et al. 2015, Gallan 2015), researchers have also shown the increased commercialisation of the night in a number of other urban contexts. Researchers in Singapore, for example, have traced how the emergent night-time economy has intersected with gendered, racial and sexual identities (Tan 2012, Yeo and Heng 2014). While the urban night in these spaces shows a replication of the Western spread of the neoliberal night time economy, there is also an emergent informal economy operating alongside this process: "one can

observe informal modes of appropriation, negotiation and democratisation performed by pedestrians, shoppers, vendors and entrepreneurs during the *laissez-faire* hours of the night” (Yeo and Heng 2014, p724). A similar situation is found in Jakarta, where “informality is central to the night zones” and any “new regulations appear as a means of renewing agreements and negotiating arrangements” (Tadié and Permanadeli 2015, p482). In other words, as with the daytime city, any global spread of ‘the night-time economy’ does not produce a same urban neoliberal model, but a series of hybrid forms always containing moments and elements of difference that fall outside of capitalist control.

A similar picture can be identified in research which has looked at electrification projects globally, many of which bring electric light to communities for the first time and as such interact with social forms to produce new nights. Kumar explores the electrification of villages in rural Bihar, taking the proposition that “light cultures (cultivates and propagates) culture and culture cultures light” (Kumar 2015, p60). He explores how lighting technologies transform but are ultimately subsumed by pre-existing social and power relations: for example, homes with new but limited access to electricity will be lit at the front of houses where men congregate, leaving women in candle or gas lit backrooms. Lighting reinvigorates public nocturnal social life, but in so doing reinforces existing gender relations (p61). It also connects newly electrified communities to the state in a variety of ways: in exploring provision of public lighting in Jordan, Verdeil argues that it “is one type of national integration, via the distribution of, and access to, a public good with major symbolic status” (Verdeil 2013). While potentially integrating people into the state, new networks of electrification also offer the opportunity for residents to (illegally) tap into networks, improvising and creating new social spaces in precarious conditions. Silver, in his research into electrification in Kampala, describes how residents in informal housing light their homes at night by connecting into passing networks (Silver 2014). This disrupts the process of national integration, while also creating new opportunities for nocturnal living.

What can thus be identified across both of these areas of research is a hybridisation of globalising, neoliberalising, ‘twentyfoursevening’ forces as they come into contact with different urban and rural situations. On the one hand, the spread of a neoliberal night-time economy or electricity networks enrolls people into the state-capital machine, enhancing their dependency on infrastructure and increasing national and global homogenisation. On the other hand, an increased geographical focus for nocturnal research helps show a diversity of nights, with a variety of different lifestyles either taking advantage of the opportunities still available with neoliberal capitalism, or subverting and transforming new infrastructures or economies. In this context, the phrase ‘fragmenting frontier’ does not just refer to the notion that what remains of the night may be becoming spread throughout a colonised timespace, but also that as nights globally become subject to capitalist expansion, a greater variety of hybrid forms of nocturnal public life will emerge.

Conclusion

By necessity, this paper has overlooked a series of current or potential research programmes into the night. Of note, work on the ‘night-time economy’ in Europe, the USA and Australia/New Zealand has already been extensively reviewed in several places (e.g. Hadfield 2015). Other areas of emergent nocturnal social science research: the potential of transforming night through artistic lighting, both as permanent features and as part of festivals (Ebbensgaard 2015, Edensor 2015);

domestic spaces at night (Shaw 2014); nocturnal urban planning (Roberts and Eldridge 2009); aesthetic representations of the night and how this shapes our understandings of place (Baker 2015, Straw 2015); light pollution and its ecological impacts (Meier, et al. 2015); and issues relating to the lives of the growing population of night-shift workers, particularly in relation to health (Wang, et al. 2011) and workplace safety (Wagstaff and Lie 2011); and no doubt several other topics that I have overlooked in this list. What connects the topics that this article has focused on is the ways in which they reveal the night to be a fragmenting frontier, that is a fragmenting 'contact zone' in which expanding 'diurnal' forces meet with the unique characterises of night to produce new hybrid social spaces.

The dominant narrative of 'night as frontier' serves as a useful metaphor for the temporal spread of capitalism. What historians of the nineteenth century night (Schivelbusch, 1988; Schlör, 1999) and social scientists exploring the twentieth century (Melbin, 1987; Gwiazdzinski, 2005) have documented is, using Smith's terminology, a gradual 'equalization' of night and day (Smith 2010), with night brought increasingly into diurnal capitalism, in the same way that colonial processes brought new spaces into the capitalism. However, more recent research has shown that the night as frontier metaphor needs to be used in a subtle way if it is to have value. In particular, frontier metaphors need to avoid over-emphasizing the emptiness of the night. The experiences of those who make use of the public night in a variety of ways, whether through choice or necessity, reveal a timespace with a significant social life of its own, independent of the expansion of the day. In other words, while spatial frontiers have been shown to be complex 'contact zones', such a rereading still needs to happen to temporal frontiers (Williams 2008). Second, narratives of the 'spread' or expansion of day into night should not be taken as stating that night and day are becoming one, or that they are homogenising. Social scientists looking at Dark Sky Parks or of the gradual return of darkness through changes to street lighting infrastructure have shown that darkness and night remain very present, even in the heart of cities where clock time has been colonised. Indeed, legislative measures now protect and cultivate darkness, though the social effects of this are still uncertain. Even within a globalising night-time economy, moments of difference, alterity and informal nocturnal living persist and are likely to persist for a long time.

It is worth noting that night remains a new research topic for social science. Several of the areas discussed remain explored by just one or two researchers, without geographically or socially diverse research programmes. Night as frontier has worked as useful metaphor for understandings of the night, but its use is limited. A greater development of Marxist, feminist, postcolonial, humanist, actor-network theory, poststructural, (post)-phenomenological and practice theory understandings of 'night' and its role or many roles in society would help create a more diverse and nuanced understanding of the various geographical, social, political, cultural and historical phenomena that are captured in what is still a black, or perhaps dark, box of night. Further research into the diversity of lived nocturnal experiences of night can help reveal that this temporal frontier has always been multiple and is now fragmenting.

- Beaumont M** 2015 *Night Walking* London, Verso
- Bogard P** 2011 Why dark skies? In: **Bogard P** ed *Let There Be Night* University of Nevada Press, Reno 1-8
- Brands J, Schwanen T, and van Aalst I** 2015 Fear of crime and affective ambiguities in the night-time economy. *Urban Studies* 52 439-455
- Cloke P, May J, and Johnsen S** 2008 Performativity and affect in the homeless city. *Environment and Planning D: Society and Space* 26 241-263
- Comedia** 1991 *Out of Hours: A study of economic, social and cultural life in twelve town centres in the U.K.* Comedia, London
- Crary J** 2013 *24/7 Los Angeles*, Verso
- Dunnett O** 2014 Contested landscapes: the moral geographies of light pollution in Britain. *Cultural Geographies* 22 619-636
- Ebbensgaard CL** 2015 Illuminights: A sensory study of illuminated urban environments in Copenhagen. *Space and Culture* 18 112-131
- Ebbensgaard CL** 2015 Urban lighting, light pollution and society. *European Planning Studies* 23 1437-1440
- Edensor T** 2013 The gloomy city: rethinking the relationship between light and dark. *Urban Studies*
- Edensor T** 2013 Reconnecting with darkness: gloomy landscapes, lightless places. *Social & Cultural Geography* 14 446-465
- Edensor T** 2015 Light art, perception, and sensation. *The Senses and Society* 1-20
- Ekrich AR** 2006 *At Day's Close* London, Pheonix
- Foucault M** 1979 *Discipline and Punish: The Birth of the Prison* Harmondsworth, Penguin
- Gallan B** 2015 Night lives: Heterotopia, youth transitions and cultural infrastructure in the urban night. *Urban Studies* 52 555-570
- Gallan B, and Gibson C** 2011 New dawn or new dusk? Beyond the binary of day and night. *Environment and Planning A* 43 2509-2515
- Green J, Perkins C, Steinbach R, and Edwards P** 2015 Reduced street lighting at night and health: A rapid appraisal of public views in England and Wales. *Health & Place* 34 171-180
- Gwiazdzinski L** 2005 *La Nuit, Dernière Frontière de la Ville [The Night: Final Frontier of the City]* La Tour-d'Aigues, Editions de l'Aube
- Hadfield P** 2006 *Bar Wars: Contesting the Night in Contemporary British Cities* Oxford, Oxford University Press
- Hadfield P** 2015 The night-time city. Four modes of exclusion: Reflections on the Urban Studies special collection. *Urban Studies* 52 606-616
- Hae L** 2012 *The Gentrification of Nightlife and the Right to the City* New York, Routledge
- Herbert D, and Davidson N** 1994 Modifying the built environment: the impact of improved street lighting. *Geoforum* 25 339-350
- Hölker F, Moss T, Griefahn B, Kloas W, Voigt CC, Henckel D, Hänel A, Kappeler PM, Völker S, Schwöpe A, Franke S, Uhrlandt D, Fischer J, Klenke R, Wolter C, and Tockner K** 2009 The dark side of light: a transdisciplinary research agenda for light pollution policy. *Ecology and Society* 15 Online
- Hollands R** (1995) Friday Night, Saturday Night. [Online]. Retrieved on 18-10-11
<http://research.ncl.ac.uk/youthnightlife/HOLLANDS.PDF>
- Hubbard P, and Colosi R** 2015 Taking back the night? Gender and the contestation of sexual entertainment in England and Wales. *Urban Studies* 52 589-605
- Jackson E** 2012 Fixed in mobility: young homeless people and the city. *International Journal of Urban and Regional Research* 36 725-741
- Jakle JA** 2001 *City Lights* Baltimore, John Hopkins University Press
- Jayne M, Gibson C, Waitt G, and Valentine G** 2012 Drunken mobilities: Backpackers, alcohol, 'doing place'. *Tourist Studies*

- Jayne M, Valentine G, and Holloway SL** 2011 *Alcohol, Drinking, Drunkenness: (Dis)Orderly Spaces* Aldershot, Ashgate
- Kumar A** 2015 Cultures of lights. *Geoforum* 65 59-68
- Lee BA, Tyler KA, and Wright JD** 2010 The new homelessness revisited. *Annual Review of Sociology* 36 501-521
- Lockwood R** 2011 A review of local authority road lighting initiatives aimed at reducing costs, carbon emissions and light pollution. Temple Group, London
- Lubin J** 2012 The 'Occupy' movement: emerging protest forms and contested urban spaces. *Berkeley Planning Journal* 25
- Mackay F** 2014 Mapping the Routes: An exploration of charges of racism made against the 1970s UK Reclaim the Night marches. *Women's Studies International Forum* 44 46-54
- Marx K** (1887) Capital: A Critique of Political Economy. 1 from:
- May RAB** 2014 *Urban Nightlife: Entertaining Race, Class and Culture in Public Space* London, Rutgers University Press
- Measham F, and Moore K** 2009 Repertoires of distinction: Exploring patterns of weekend polydrug use within local leisure scenes across the English night time economy. *Criminology and Criminal Justice* 9 437-464
- Meier J, Pottharst M, Krause K, and Hasenohrl U** 2015 The New Visibility of Lighting In: **Meier J, Pottharst M, Krause K and Hasenohrl U** eds *Urban Lighting, Light Pollution and Society* 1-6
- Melbin M** 1977 The Colonization of Time. In: **Carlstein T, Parkes D and Thrift N** eds *Timing Space and Spacing Time* Edward Arnold, London 100-113
- Melbin M** 1987 *Night as Frontier: Colonizing The World After Dark* New York, The Free Press
- Middleton J, and Yarwood R** 2015 'Christians, out here?' Encountering Street-Pastors in the post-secular spaces of the UK's night-time economy. *Urban Studies* 52 501-516
- Morris NJ** 2011 Night walking: darkness and sensory perception in a night-time landscape installation. *Cultural Geographies* 18 315-342
- Morrissey J** 2005 Cultural geographies of the contact zone: Gaels, Gallsand overlapping territories in late medieval Ireland. *Social & Cultural Geography* 6 551-566
- Naum M** 2010 Re-emerging Frontiers: Postcolonial Theory and Historical Archaeology of the Borderlands. *J Archaeol Method Theory* 17 101-131
- Pain R, Macfarlane R, Turner K, and Gill S** 2006 'When, where, if, and but': qualifying GIS and the effect of streetlighting on crime and fear. *Environment and Planning A* 38 2055-2074
- Painter K** 1996 The influence of street lighting improvements on crime, fear and pedestrian street use, after dark. *Landscape and Urban Planning* 35 193-201
- Pease K** 1999 A Review of Street Lighting: Crime Production Effects. *Crime Prevention Studies* 10 47-76
- Peck J** 2012 Austerity urbanism. *City* 16 626-655
- Peet R** 2011 Inequality, crisis and austerity in finance capitalism. *Cambridge Journal of Regions, Economy and Society* 4 383-399
- Pottharst M, and Könecke B** 2013 The Night and Its Loss. In: **Henckel D, Thomaier S, Könecke B, Zedda R and Stabilini S** eds *Space-Time Design of the Public City* Springer Netherlands, 37-48
- Pratt ML** 2008 *Imperial eyes : travel writing and transculturation* London, Routledge
- Roberts M, and Eldridge A** 2009 *Planning the Night-time City* London, Routledge
- Schivelbusch W** 1988 *Disenchanted Night* Oxford, Berg Publishers
- Schlör J** 1998 *Nights in the Big City: Paris, Berlin, London 1840-1930* London, Reaktion
- Sharma S** 2014 Because the Night Belongs to Lovers: Occupying the Time of Precarity. *Communication and Critical/Cultural Studies* 11 5-14
- Sharman R, and Sharman C** 2008 *Nightshift NYC* Berkley, University of California Press
- Shaw R** 2014 Beyond night-time economy: Affective atmospheres of the urban night. *Geoforum* 51 87-95

- Shaw R** 2014 Controlling darkness: self, dark and the domestic night. *Cultural Geographies* Online Early Access
- Shaw R** 2014 Streetlighting in England and Wales: new technologies and uncertainty in the assemblage of streetlighting infrastructure. *Environment and Planning A* 46 2228-2242
- Shohat E** 1992 Notes on the "Post-Colonial". *Social Text* 99-113
- Silver J** 2014 Incremental infrastructures: material improvisation and social collaboration across post-colonial Accra. *Urban Geography* 35 788-804
- Smith N** 2010 *Uneven development : nature, capital, and the production of space* London, Verso
- Steinbach R, Perkins C, Tompson L, Johnson S, Armstrong B, Green J, Grundy C, Wilkinson P, and Edwards P** 2015 The effect of reduced street lighting on road casualties and crime in England and Wales: controlled interrupted time series analysis. *Journal of Epidemiology and Community Health* Online Early Access
- Straw W** 2015 Chrono-Urbanism and Single-Night Narratives in Film. *Film Studies* 12 46-56
- Tadié J, and Permanadeli R** 2015 Night and the city: Clubs, brothels and politics in Jakarta. *Urban Studies* 52 471-485
- Tan QH** 2012 Flirtatious geographies: clubs as spaces for the performance of affective heterosexualities. *Gender, Place & Culture* 20 718-736
- Tomic P, Trumper R, and Dattwyler RH** 2006 Manufacturing Modernity: Cleaning, Dirt, and Neoliberalism in Chile. *Antipode* 38 508-529
- Verdeil E** (2013) The Geography of Public Lighting in Arab Cities. [Online]. Retrieved on 12/08/2015 <http://www.jadaliyya.com/pages/index/14378/the-geography-of-public-lighting-in-arab-cities>
- Wagstaff AS, and Lie J-AS** 2011 Shift and night work and long working hours - a systematic review of safety implications. *Scandinavian Journal of Work, Environment & Health* 37 173-185
- Wang X-S, Armstrong MEG, Cairns BJ, Key TJ, and Travis RC** 2011 Shift work and chronic disease: the epidemiological evidence. *Occupational Medicine* 61 78-89
- Wilkinson S** 2015 Alcohol, Young People and Urban Life. *Geography Compass* 9 115-126
- Williams R** 2008 Night Spaces: Darkness, Deterritorialization, and Social Control. *Space and Culture* 11 514-532
- Yeo S-J, and Heng CK** 2014 An (Extra)ordinary Night Out: Urban Informality, Social Sustainability and the Night-time Economy. *Urban Studies* 51 712-726